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# THE ★ STAR ★ VENTILATOR

Superior to All Others.

Handsome,

Simple,

Durable,

Storm-Proof,

Cheap.

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• •  
• •  
• •

• • For Ventilation of • •

Churches, School Houses, Public  
Buildings of various kinds,  
Residences, Kitchens,  
Out-houses, Stables,  
etc., etc.

• • ALSO FOR • •

Factories, Cotton and Woolen Mills,  
Carpet and Paper Mills, Machine  
Shops, Foundries, Dye  
Houses, Morocco  
Factories, etc.

CHIMNEY DRAUGHTS INCREASED.

SMOKY AND GASSY CHIMNEYS OR DOWN DRAUGHTS CURED

FOR SEWER AND DRAIN PIPE VENTILATION.

❖ Merchant & Co. ❖

PHILADELPHIA

NEW YORK,

CHICAGO

KANSAS CITY,

LONDON.

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MERCHANT & CO., PHILA.  
1891.

PRESS OF  
DAKIN & PETRY  
PHILA.

.. THE ..  
STAR  
VENTILATOR.



IN calling the attention of the public to the *Sher Ventilator*, by the issue of this little book, our idea is to illustrate not only the Ventilator itself but its practical working and design.

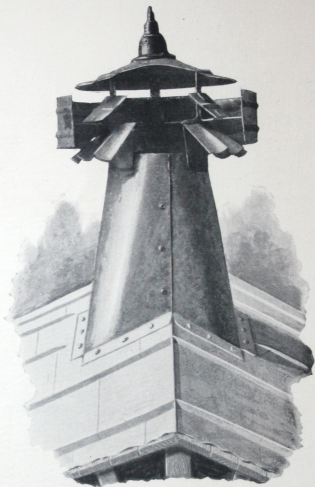
During our long experience in Ventilators we have not only tested carefully the individual merits of each, but have ourselves handled the sale of some of those best known.

We feel, therefore, satisfied that the position we take is a correct one, when we recommend the exclusive use of the *Star Ventilator*, which we guarantee to be *better* than any other stationary cap in the market.

THE STAR  
VENTILATOR

when properly applied and of the right capacity, prevents a downward current, thereby insuring an upward draught, and is storm-proof and durable.

The Star Ventilator being a stationary cap is acted upon solely by the natural currents of the air, which, owing to the internal and external patented construction of the Ventilator, operate to produce a vacuum, which simultaneously induces an upward draught, carrying with it all gaseous substances, smoke, etc., contained in the chimney, pipe, building, etc., to which the Ventilator is attached.



SECTIONAL VIEW.

## BASES FOR CHIMNEY CAPS.



HERE are two plans of placing or attaching the "Star" Ventilator Caps to a chimney, both of which are thoroughly practical. They are also economical and durable. These attachments, or bases, are made of heavy galvanized sheet iron, and are made to fit closely to the chimney, with either an inside or outside flange arrangement. The box attachments are securely riveted. We furnish the Ventilators complete in any size, and to fit any chimney.

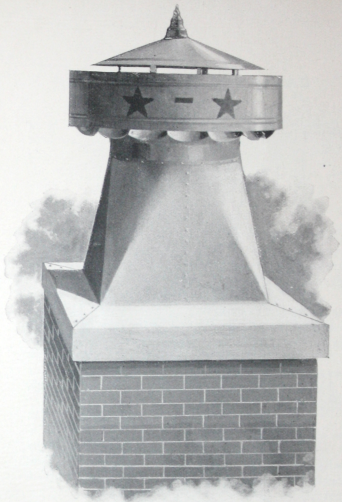
It will be observed from the cut, on page 6, that the box or base is made to fit over the entire chimney, making it impossible for any rain, snow or dampness to get on the inside of the flue.

The inside flange arrangement is also proof against water, as may be seen by the cut on page 8.

These are also well riveted and made to fit closely to the chimney.

Great care should be used in giving measurement, so as to insure good results.

In applying the "Star" Ventilators to chimneys which are badly constructed—which are old and worn out—the "Star" can at best be only an assistant—a help; but it will be a very *serviceable* help.



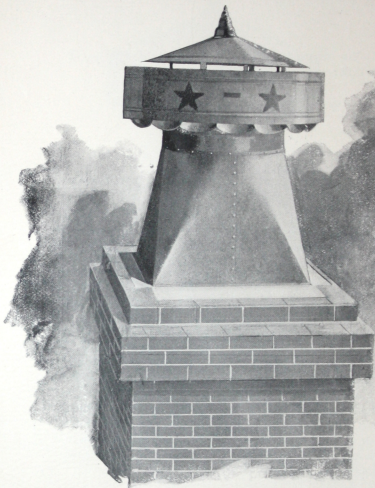
FAC-SIMILE OF "STAR" VENTILATOR IN POSITION, SHOWING  
THE BASE WITH OUTSIDE FLANGE.

We here submit a table showing the capacity of the different sizes of the "Star" Ventilator.

CAPACITY OF THE DIFFERENT SIZES OF THE  
"STAR" VENTILATOR.

DIAMETER.	CAPACITY.	DIAMETER.	CAPACITY.
2 inches,	4 sq. inches,	10 inches,	78 sq. inches,
2½ "	6 "	12 "	113 "
3 "	7 "	14 "	154 "
3½ "	9 "	16 "	201 "
4 "	12 "	18 "	254 "
4½ "	16 "	20 "	314 "
5 "	19 "	24 "	452 "
5½ "	24 "	30 "	707 "
6 "	28 "	36 "	1018 "
7 "	38 "	40 "	1256 "
8 "	50 "	48 "	1809 "
9 "	63 "	60 "	2827 "

The "Star" Ventilator has a larger ventilating capacity than any other which is storm-proof. The Ventilator Cap, however, must necessarily have as great a capacity as the flue or opening upon which it is placed, in order to obtain satisfactory results. For instance, if a flue measuring 8 x 12 inches, inside diameter, nothing less than a 10-inch Ventilator should be used.



FAC-SIMILE OF "STAR" VENTILATOR IN POSITION, SHOWING  
BASE WITH INSIDE FLANGE.



Where a chimney has more than one flue, a separate Cap for each would be advisable. While two or more flues may be covered with a large base, yet a separate pipe should be made for each flue, making them independent of each other, and thereby preventing any gas or smoke to enter one from the other.

... THE ...

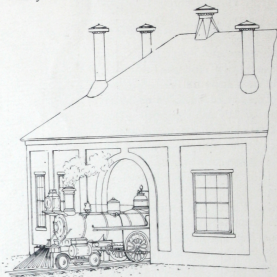
## STAR VENTILATOR

We have no hesitation in commending to the favorable attention of architects, engineers and builders everywhere. We show by the various cuts, etc., the construction of the Ventilator, and also its application to the ridge of a roof or to a chimney flue. The shaft of the "Star" Ventilator may be arranged to suit circumstances. We also show, by the views of buildings, the appearance of the "Star" Ventilators in position, and indicate in some measure the range of uses to which it may be applied.



For the ventilation of mills and all other buildings, we furnish, in addition to the Ventilator Caps, if desired, base attachments, including damper inside the pipe, having brass bearings, working automatically, with cords.

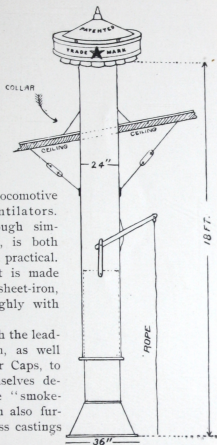
We show in this illustration the application of the "Star" Ventilator Caps on a locomotive round-house. They are made of special material. They are made of very heavy black sheet iron, well put together and



riveted, after which they are thoroughly coated with pure lead, which makes them not only impervious to the weather, but also proof against sulphurous gases, smoke, steam, moisture, etc., from the engines.

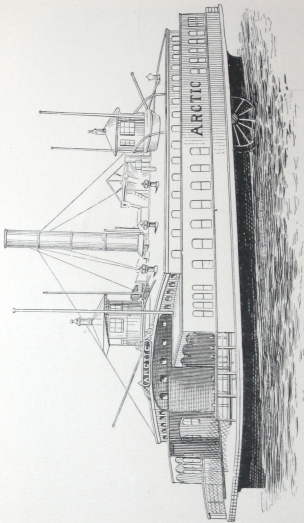
We show here a design of a "smoke-jack," for locomotive round-house, complete, including our "Star" Ventilator Cap, which will be of interest to those contemplating the erection of locomotive round-house Ventilators. The design, though simple in its detail, is both economical and practical. The whole outfit is made of heavy black sheet-iron, coated thoroughly with pure lead.

We can furnish the lead-coated sheet-iron, as well as the Ventilator Caps, to those who themselves desire to make the "smoke-jacks." We can also furnish special brass castings for dampers.

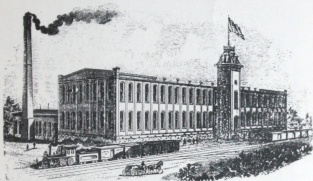








The Pennsylvania Railroad Company have adopted the "Star" Ventilator Cups for their Ferryboats, and we have furnished them with same, complete, with bases and registers, cords, etc. The above cut is taken from a photograph of the Steamer "Arctic," plying between the cities of Philadelphia, Pa., and Camden, N. J.



The above cut represents the LaGrange Mills, LaGrange, Ga., on which 17 of the 24-inch "Star" Ventilators have been in use for several years with the best results.



View of McNeely & Co.'s Morocco Factory, Sixth and Columbia Ave., Philadelphia,  
showing position of Star Ventilators, 24 inch in diameter.





Swift Manufacturing Co.'s Building, Columbus, Ga.

The following letter will explain what success the "Star" Ventilators are meeting with in this instance, which is one of the many cases where our Ventilator Caps are used.

[COPY]

THE SWIFT MANUFACTURING COMPANY,

Columbus, Ga., June 12th, 1890.

Messrs. MERCHANT & Co., Philadelphia.

*Dear Sirs:*—We own your favor of June 9th, and in reply beg to say that we have in our mill and workshop several of your "Star" Ventilators and they give perfect satisfaction.

We are very truly,

SWIFT MFG. COMPANY.

[SIGNED]

J. P. KYLE, Treasurer.

[COPY]

OFFICE OF MCKEAN COUNTY FARM.

H. C. Lott, Supt.

Bloomington, Ills., *January 29th, 1890.*

Messrs. MERCHANT & Co., Philadelphia.

*Dear Sirs:*—I wish to say that the six "Star" Ventilators that we have in use here (4 10-inch and 2 24-inch) are giving us perfect satisfaction. I cheerfully recommend them.

Respectfully yours,

[SIGNED]

H. C. LOTT, *Supt.*

[COPY]

Williamsport, Pa., *February 1st, 1889.*

Messrs. MERCHANT & Co., Philadelphia.

*Gentlemen:*—Regarding the success of the "Star" Ventilator Cap, would say we have had several violent wind storms and that, too, from the quarter which always made the chimney on which it is placed a total failure. I now have the pleasure of stating that the Cap has proved a perfect success, preventing all downward draught and perfect freedom from gas and smoke in the room below.

Respectfully yours,

[SIGNED]

G. W. TALLY, *Architect.*

[COPY]

GEORGE WHEELER,

Dealer in Stoves, Heaters, Tin, Hollow-Ware, etc.

Troy, N. Y., *July 27th, 1889.*

Messrs. MERCHANT & Co.

*Gents:*—Every one of the Ventilators which I have used during the past season has given satisfaction, and I can say there is nothing to equal them for weak draft chimneys.

Respectfully,

[SIGNED]

GEORGE WHEELER.

[COPY]

Albany, N. Y., *May 16th, 1889.*  
Messrs. MERCHANT & Co., Philadelphia.

*Dear Sirs:*—I send you, with pleasure, a check for the amount of your bill dated May 6th. Your "Star" Ventilators work well. I shall send for more and use them whenever needed.

Yours very truly,

[SIGNED]

A. FLEISCHMAN, *Architect.*

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[COPY]

Office of Supt. Jersey City Ferries, Pennsylvania R. R. Co.  
Jersey City, *January 7th, 1890.*  
Messrs. MERCHANT & Co., Philadelphia.

*Gents:*—Your favor of yesterday received, and in answer thereto would say that the 7-inch "Star" Ventilator Cap you sent was put on the top of chimney of my residence at 128 Prince Street, Bordentown. Previous to putting it on the chimney did not draw well, and when the wind was in a certain direction would blow down the pipe, driving the gas out into the room and at night the air valve in the pipe had to be kept closed to keep the fire over night. But since the Cap was put on, we have all the draught we need, and let the wind blow from any point of the compass, it never blows the gas down, and the air valve has to be left open at night to keep the fire from burning itself out. So you see, from the above facts, that the Cap has done all that you claim for it, and I would recommend its use to any one in need of an auxiliary draft.

Yours truly,

[SIGNED]

ROBT. BLOOMSBURG.

÷ ÷ PRICE-LIST ÷ ÷  
— OF —

# Star ☆ Ventilators AND Chimney Caps



GALVANIZED IRON.

DIAMETER	PRICE GALV'IZED	DIAMETER	PRICE GALV'IZED	DIAMETER	PRICE GALV'IZED
2 inch,	\$1 00	6 inch,	\$3 40	18 inch,	\$27 00
2½ "	1 00	7 "	4 00	20 "	33 00
3 "	1 50	8 "	4 65	24 "	40 00
3½ "	1 50	9 "	5 20	30 "	65 00
4 "	1 75	10 "	5 75	36 "	120 00
4½ "	2 00	12 "	6 75	40 "	180 00
5 "	2 50	14 "	13 00	48 "	240 00
5½ "	2 85	16 "	20 00	60 "	360 00

**SPECIAL DISCOUNT ON VENTILATOR CAPS UPON APPLICATION.**

Bases will be made to fit any roof or chimney, either square or oblong, of any size required; but the price of the bases are *extra*, according to size and quantity.

We furnish dampers, if wanted, to work automatically, opening and closing at will, by using cord fastenings; and, besides being a means of regulating the atmosphere in the building, the damper serves as a support to the bases.

